Center for Advanced Studies in Child Welfare

MINNESOTA LINK

Minnesota-Linking Information for Kids

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RESEARCH BRIEF

Integrating Data to Understand Adverse Childhood Experiences Among Minnesota Youth

Purpose of the Study

For the first time ever, Adverse Childhood Experiences (ACEs) data will be available at the county and school district levels for Minnesota youth by integrating information from state administrative data sources and the Minnesota Student Survey. This integrated system will improve data-informed prevention planning by providing access to local community data for ACEs and related risk and protective factors known to influence the severity, incidence, and long-term impacts of ACEs.

Background & Purpose

Children are shaped by their earliest experiences and relationships at home, at school, and in their neighborhoods. Adverse Childhood Experiences, or ACEs, are stressful events occurring in a child's life before age 18 that can impact their health and well-being. ACEs include things that happen at home or in community that can cause or contribute to the pile-up of stress that overwhelms a child's ability to cope (Division of Violence Prevention, 2023). The impacts of ACEs sometimes do not show up until many years later, and the more ACEs experienced, the greater the risk of experiencing health problems and challenges in school, work, and relationships (American Academy of Family Physicians, 2023). Understanding ACEs and working to ameliorate their effects can improve overall community wellbeing.

Photo credit: Rido Franz

UNDERSTANDING ACEs AND WORKING TO AMELIORATE THEIR EFFECTS CAN IMPROVE OVERALL COMMUNITY WELLBEING.

Minnesota communities need local data from a variety of sources to build a picture of the strengths and challenges of each unique community and inform ACEs prevention efforts. The Minnesota Department of Health (MDH) is working to build a surveillance infrastructure for ACEs and related indicators to provide improved access to these data in a user-friendly way. The ACEs surveillance project brings together data from the Minnesota Student Survey (MSS), education and child welfare data from the Minnesota Departments of Education and Human Services, and publicly available data from the U.S. Census and other sources.

Questions communities will be able to answer with this data include those answered in this brief:

1. ***What kinds of protective factors do students in our community have?***
2. ***What risk factors are most prevalent for students in our community?***
3. ***What is the prevalence of ACEs experienced by students in our community?***
4. ***Do racial/ethnic disparities exist in ACES experiences for Minnesota students?***

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Methods

Through Minn-LInK and partnerships with the Wilder Foundation and the Minnesota Department of Education, MDH staff brought together community-level aggregate data on ACEs from the Minnesota Student Survey and the child welfare and education systems. These data will be incorporated into an interactive data dashboard and made available on the MDH website.

In partnership with the Wilder Foundation, MDH staff collected community input on important ACEs-related indicators (risk and protective factors at all levels) for inclusion in a statewide ACEs surveillance system (i.e., a dashboard). Once a comprehensive list of potential indicators was developed, the team worked with state and local partners to prioritize the indicators that should be included in an ACEs surveillance system.

Minn-LInK analysts worked with the MDH team to identify relevant indicators available in education (Minnesota Automated Reporting Student System [MARSS]) and child welfare (Social Services Information System [SSIS]) data that addressed the prioritized list of indicators for the 2013-2019 academic years. Once those were identified, the Minn-LInK analyst aggregated data for each indicator at the county-level.

The MDH team then pulled together school district and county level aggregate data from the 2022 Minnesota Student survey (MSS) on eight ACEs, and the risk and protective indicators found to be relevant and accessible. Risk factors included forms of bulling/harassment, exploitation, dating violence, and homelessness. Protective factors included feelings of safety, empowerment, care by adults, and social connection.

Findings

A large proportion of students (83.7%) report having multiple protective factors. Yet, nearly half (47.3%) of students reported experiencing one or more ACEs, with 6.9% reportedly experiencing four or more ACEs. Mental illness in the home is the most reported ACE across all racial/ethnic groups with about 30% of surveyed students indicating such. However, ACE prevalence varies widely across racial/ethnic groups.

Protective Factors Among Minnesota Youth

A total of 10 protective factors prioritized in the indicator selection process are summarized in version one of the dashboard. One out of every six (16.3%) students reported having four protective factors or fewer. While no student had all 10 factors, more than a third (36.8%) of students reported having eight protective factors.

The majority (80.5%) of students reported strong social and emotional health, but there was wide variability in social and emotional health reported across racial/ethnic groups. This ranged from 61.5% of Native Hawaiian/Pacific Islander students reported feeling strong in this area to 82.5% of White students. For this metric, students were asked for their level of agreement to statements like "I stay away from bad influences", "I plan ahead and make good choices", and "I say no to things that are dangerous or unhealthy." It is important to consider that due to circumstances outside of their control, some students may have more opportunities to make good choices or avoid dangerous activities than others do. By viewing these data through an equity lens, we can identify strategies to strengthen protective factors in ways that may look different in a variety of communities.

A lesser reported protective factor was whether an adult at school had helped the student think through post-graduation education options. This question was only asked of 9th and 11th grade students, of whom 65.2% answered in the affirmative.

Risk Factors Among Minnesota Youth

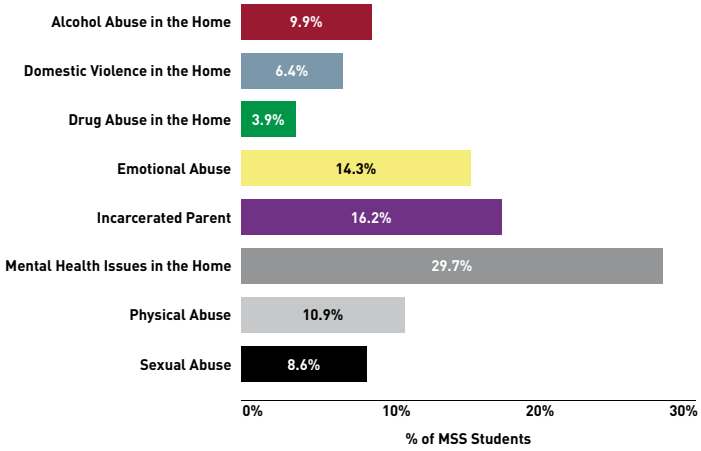
The dashboard is also designed to provide community-based information about a variety of risk factors experienced by Minnesota youth – informed by a variety of sources. Approximately 4,100 students reported ever being involved in foster care and about 4,600 reported being homeless at some point in the preceding year in the MSS. Child welfare data from across the state in 2020 show that 33,847 school-age children were the subject of an accepted report of maltreatment in county-based child protection services, 61% of whom were involved due to some type of neglect (including medical neglect.) In 2020, 331,000 school age children were eligible for free or reduced lunch – a marker of family poverty. While prioritized as a valuable indicator by stakeholders, the recent funding of free school

lunch for all students will likely prevent future updates to this statistic. Thus, in future versions of the dashboard, indicators of economic and housing stability at the county level will be presented instead.

Adverse Childhood Experiences (ACEs) Among Minnesota Youth

Students reported experiencing a wide range of ACEs in the MSS (Figure 1). The most common ACE reported by students was the presence of mental health issues in their household. In fact, nearly one out of every three students reported experiencing this ACE.

Figure 1. ACEs Reported by Students in All Participating Districts

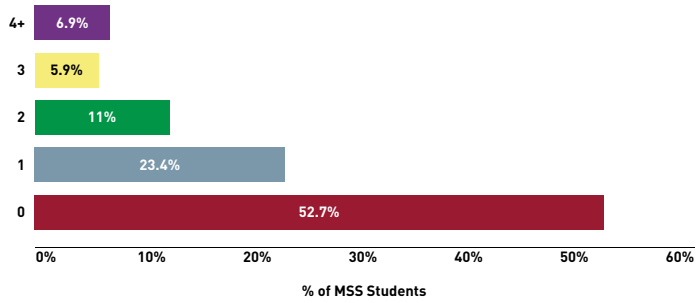


While sexual abuse was reported by a comparatively small proportion of students, 8.6% of all students, this represents over 7,000 Minnesota youth. We know that not all sexual abuse gets reported to child protection, and not all reports are accepted for investigation. However, as of fall 2023, the data dashboard will also show youth involvement in accepted child protection cases in communities across Minnesota, and thus will add additional information to our understanding of this phenomenon. Statewide data from 2020 show that just over 5,000 school-age children were involved with child protective services for reasons involving sexual abuse. This is up from just over 3,100 children in 2013 but down from a recent peak of around 5,500 children in 2017/2018.

The least reported ACE was drug abuse in the household (3.9%), which is asked separately from alcohol abuse (9.9%). For reasons such as stigma, cultural norms, and how students perceive their own experiences, students may see their families' relationships with drugs and alcohol differently. Paired with data on binge drinking rates and substance use disorders in Minnesota, knowing how children see the issues that surround them is crucial for understanding the familial and social impact of substance abuse.

As shown in Figure 2, nearly half (47.3%) of students reported experiencing one or more ACEs. Just 6.9% of students reported experiencing four ACEs or more. Four is a standard cutoff for ACEs researchers and was used in this resource for consistency (Parks, et al., 2022).

Figure 2. Number of ACEs Reported by MSS Students in All Districts



Children from communities that have experienced structural racism and other injustices tended to report more ACEs. As an example, about one in six students in Minnesota reported having an incarcerated parent or caregiver. However, 19.2% of these students identified as multi-racial, an overrepresentation of this group who made up only 9.9% of all MSS participants. Looking at the school district level, this pattern is repeated. For example, in Minneapolis Public Schools, students who identify as Black/African American and those who identify as multi-racial are overrepresented in experiences of having an incarcerated parent (Table 1). White students, on the other hand, are underrepresented in these same experiences.

NEARLY HALF (47.3%) OF STUDENTS REPORTED EXPERIENCING ONE OR MORE ACES. JUST 6.9% OF STUDENTS REPORTED EXPERIENCING FOUR ACES OR MORE.

Table 1. Parental Incarceration and Racial/Ethnic Identity

Race/Ethnicity	Proportion Reporting ACE	Proportion in District's MSS Population	Over/Under Representation
American Indian/ Alaskan Native	3.9	2	Similar
Asian	2	3.2	Similar
Black/African American	28.8	20.9	Over
Hispanic	11.8	12.9	Similar
Middle Eastern/ North American	0	0.5	Similar
Multi-Racial	30.1	12.6	Over
White	22.9	45	Under

Note. *Differences within 5% were deemed similarly represented in the proportion reporting ACE and the proportion in the district's MSS population*

Conclusion

ACEs create toxic stress in children and can have lifelong, negative impacts. Protective and risk factors can decrease or increase the likelihood of negative impacts of ACEs experienced by young people. Building resilient children, families, and communities can help to prevent ACEs and reduce the harmful social and health impacts that can occur across the lifespan.

High quality local level data is necessary for community leaders, policy makers, educators, public health staff, and others to understand the prevalence of ACEs as well as protective and risk factors in their area. The MDH is working to build an ACEs surveillance system that provides timely local level data on ACEs and related risk and protective factors to fill this need (Minnesota Department of Health, n.d.). The surveillance data will be provided in interactive data dashboards, with supplementary brief reports for sub-populations of young people where numbers may not allow disaggregation at the local level. The data can inform prevention program planning and be used to evaluate efforts over time. The first version of the ACEs dashboard summarizes ACEs prevalence and risk/protective factors from the MSS at the school district level. The second version of the dashboard will integrate MSS, education, child welfare, and US Census data at the county level. This is the first time ACEs data at the local level will be synthesized for public display and programmatic use in Minnesota. Bringing these data sources together provides a more complete view of community strengths and challenges and can help our community members identify ways to build resilience around Minnesota.

Limitations

The MSS is administered to 5th, 8th, 9th, and 11th grade students. Extrapolation to other grades should be done with appropriate consideration. More documentation for the MSS can be found on the MDH website. Many experiences in childhood that provoke a prolonged, intense stress response could be considered ACEs. While the MSS asks about the 8 ACEs shown in Figure 1, there are likely other ACEs that are not included.

It is important to remember that due to circumstances outside of their control, some students may have more opportunities to make good choices or avoid dangerous activities than others do. By viewing these data through an equity lens, we can identify strategies to strengthen protective factors in ways that may look different in a variety of communities.

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Dashboard citation: Minnesota Department of Health. (n.d.). *Preventing ACEs Dashboard.* https://www.health.state.mn.us/communities/ace/data/index.html.

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The Center for Advanced Studies in Child Welfare (CASCW) is a resource for child welfare professionals, students, faculty, policy-makers, and other key stakeholders concerned about child welfare in Minnesota. **Minn-LInK** is a unique collaborative, university-based research environment with the express purpose of studying child and family well being in Minnesota using state administrative data from multiple agencies.

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